## REMARKS

Claims 1-16 and 20-25 are pending. Claims 1-16 and 20-25 stand rejected under 35 U.S.C. § 112, ¶ 1 as failing to comply with the enablement requirement. Claims 1-16 and 20-25 stand rejected under 35 U.S.C. § 112, ¶ 2 as being indefinite for failing to particular point out and distinctly claim the subject matter that the Applicant regards as the invention. Claims 1-5, 7, 11-16, and 20-25 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,363,378 to Conklin et al. Claims 6 and 8-10 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,363,378 to Conklin et al.

Reconsideration is requested. No new matter is added. The rejections are traversed. Claims 1-16 and 20-25 remain in the case for consideration.

The Examiner included initialed copies of the first pages of Forms PTO-1449 as submitted by the Applicant on June 23, 2000 and March 5, 2002, but failed to include an initialed copy of the second page of the Form PTO-1449 submitted on June 23, 2000 (including a single additional reference titled "Wordnet – A Lexical Database for English" submitted therewith). The Applicant requests that the Examine provide the Applicant with an initialed copy of the second page of Form PTO-1449 as submitted on June 23, 2000, indicating that the Examiner has considered the reference listed thereon.

## **INTERVIEW SUMMARY**

On January 18, 2005, the undersigned spoke with Examiner Edouard regarding the rejections of the claims. The undersigned inquired about the rejection under 35 U.S.C. §§ 102(e) and 103(a). Given that the Examiner had maintained the rejections from the previous Office Action, the undersigned did not understand the Examiner's reasoning in rejecting the Applicant's previous arguments as moot. The Examiner indicated that given the rejection under 35 U.S.C. § 112, ¶¶ 1-2, the Examiner had to read the claims broadly, and so the arguments were not pertinent to the rejection.

The undersigned and the Examiner also discussed the rejections under 35 U.S.C. § 112. The Examiner indicated that if a sufficient argument were presented with respect to the rejections under 35 U.S.C. § 112, the Examiner would withdraw those rejections, and would then most likely have to review the claims with respect to the rejections under 35 U.S.C. §§ 102(e) and 103(a).

## REJECTIONS UNDER 35 U.S.C. § 112

The Examiner has rejected claims 1-16 and 20-25 as failing to comply with the enablement requirement of 35 U.S.C. § 112, ¶ 1, and for being indefinite under 35 U.S.C.

§ 112, ¶ 2. The Examiner has indicated that his reading of the specification fails to show the feature that "for each pair of concepts in each chain, one of the pair of concepts is a lineal ancestor of the other of the pair of concepts". The Examiner indicated that the specification on pages 11-12, which supports FIG. 4, does not describe this feature.

FIG. 4 shows the directed set, including all of the concepts, and directed links between certain pairs of concepts. In the example of FIG. 4, the directed links establish a "type of" relationship between one concept and some of the other concepts, in increasing specificity in the illustrated example. For example, "thing" 305 is the maximal element in the directed set because "every other concept is a type of 'thing" (page 11, line 11 of the specification). The directed links establish which concepts are "types of" other concepts. For example, there is a directed link between "behavior" 440 and "being" 430. This means that "being" 430 is a "type of" "behavior" 440. Further, the "type of" relationship is transitive. That is, as an example, "human" 450 is also a "type of" "behavior" 440, because "human" 450 is a type of "person", which is a "type of" "being" 430. That the "type of" relationship is transitive is implied by the statement that "every other concept is a type of thing".

It should therefore be apparent that, for any two concepts in the directed set connected by one or more directed links, the concept that is "higher" up the directed set (that is, less specific and therefore closer to the maximal element) is a parent (i.e., ancestor) concept to the other concept. But the Examiner read the above feature as indicating that for any pair of concepts in the directed set, one concept is a lineal ancestor of the other concept. This interpretation overlooks the words "in each chain" in the claims.

Instead of referring to FIG. 4, the Examiner is encouraged to consider, for example, FIG. 5B of the application. FIG. 5B is used because it includes the specific concept "iguana" 560, discussed by the Examiner in the rejection. But any of FIGs. 5A-5G could be used (recognizing that FIG. 5A shows two chains, not one; for example, there is no lineal ancestor relationship between "animal" and "person" because they are in different chains). FIG. 5B shows a single chain, running from maximal element (or most general, in the given example) "thing" to the specific concept "iguana". As discussed above, a person of ordinary skill will recognize that the figure is interpreted from the top to the bottom: the use of the term "maximal" in "maximal element" suggests that "thing" is at the top. This is also supported by the specification at page 11, lines 10-11 of the specification, where it states that "[t]hing' 305 is the maximal element of the set, as every other concept is a type of 'thing'".

As described in the specification, "chains are composed of directed links . . . between pairs of concepts" (page 11, lines 19-20). It should be clear that a chain establishes a sequence of concepts, such that each concept in the chain is a "type of" all of the concepts above it in the chain. Thus, a person of ordinary skill will understand that for each pair of elements in the chain, the one closer to the maximal element is the ancestor, and the one farther from the maximal element is the descendant. Looking at the chain and giving some consideration to the concepts of "thing" 305 and "iguana" 560, it should be clear that an "iguana" is a type of "thing", and therefore "thing" is the lineal ancestor of "iguana". Similarly, the concept "animal" is a lineal ancestor of "reptile", and more specifically yet, of "iguana". Thus, the concept of a "lineal ancestor" is clearly apparent from and enabled by the specification, the claims are not indefinite, and the requirements of 35 U.S.C. § 112, ¶¶ 1-2 are satisfied. Thus, claims 1-16 and 20-25 are patentable under 35 U.S.C. § 112, ¶¶ 1-2, and claims 1-16 and 20-25 are therefore allowable.

## REJECTIONS UNDER 35 U.S.C. §§ 102 and 103

Although the Examiner indicated on page 2 of the Office Action dated October 22, 2004, that the arguments presented with respect to claims 1-16 and 20-22 were moot in view of the new grounds of rejection, in the telephonic interview of January 18, 2005 the Examiner acknowledged that overcoming the rejections under 35 U.S.C. § 112, ¶¶ 1-2 would necessitate reconsideration of the rejections under 35 U.S.C. §§ 102 and 103. The Applicant believes that the rejections under 35 U.S.C. § 112 have been overcome, and restates herein by reference all of the arguments relating to the patentability of the claims under 35 U.S.C. §§ 102 and 103.

Respectfully submitted,

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